

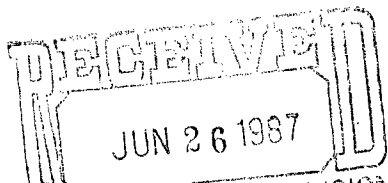


PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP

June 23, 1987



Application for Exception to
Statewide Rule No. 303-C to
Downhole Commingle Production

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Attn: Williams J. LeMay
Director

Gentlemen:

We respectfully request administrative approval to downhole commingle production on our Wyatt A Federal, Well No. 13, as provided in Statewide Rule 303-C3. Pertinent well information and data is included herein:

- a) Name and address of operator:
Phillips Petroleum Company
4001 Penbrook Street
Odessa, Texas 79762
- b) Lease name, well number & location:
Wyatt A Federal, Well No. 13
Unit E, 1980' FNL & 660' FWL of Section 33, T-17-S, R-33-E
Lea County, New Mexico

Pools to be commingled:
Corbin - Queen (Oil)
Maljamar - Grayburg/San Andres (Oil)
- c) Plat is attached showing acreage dedicated to the well and the ownership of all offsetting leases.
- d) Current productivity tests on each zone:
Neither zone has produced within 30 days. The Corbin Queen zone last produced measurable quantities of oil in July, 1963. The Maljamar Grayburg/San Andres zone last produced oil in May, 1952 before the well was recompleted to the Corbin Queen zone. The only 24 hour productivity tests available on either zone were run to determine initial potential upon completion and these tests are not representative of the zones' current productive potential.

REG/PRO5/exception

- e) Allocation of commingled production based on production histories: A production decline curve for the Queen zone is attached. Based on this production history, the Queen is completely depleted and no production will be allocated to the Queen zone. The Grayburg/San Andres will be allocated 100% of the oil, gas, and water production.

Well completion history - wellbore sketch attached:

Well was drilled and completed in June, 1947 in the Grayburg/San Andres. After acidizing with 2000 gallons of acid and shooting with 220 quarts of nitroglycerine, the well had an initial pumping potential from open hole 3995'-4310' of 64 BOPD and 0 BWPD.

The Grayburg/San Andres was abandoned below a bridge plug at 3733' in June, 1952. After fracture treating with 20,000 gallons of refined oil containing 25,000 lbs. sand, initial flowing potential from the Queen perforations 3695'-3720' was 34 BOPD. The Queen reservoir was produced until 1963 when it was shut in, unprofitable to operate, at less than 1 BOPD.

Production decline curve for Queen is attached. Data is not available for Grayburg/San Andres.

Prediction of future production:

Estimated initial oil production from the Grayburg/San Andres is 15 BOPD, 1000 GOR, with oil production declining exponentially at a 20% annual rate.

- f) Bottom hole pressures for each zone:
The well has been temporarily abandoned since 1963 and not bottom hole pressures are available. It is anticipated that the fluid level in the well will be within 100' of the Grayburg/San Andres perforations when the well is pumping.
- g) Fluid characteristics:
Samples of produced water from the subject well are not available, so representative water analyses are attached for produced water from the Queen and Grayburg/San Andres zones taken from wells in Maljamar Pool. The water from the Queen is very similar to the Grayburg/San Andres water and will be compatible in the wellbore.

- h) Computation of value of commingled production vs. individual streams:

Individual streams:

Grayburg/San Andres

(15 BOPD) X \$16.50/bbl = \$248/day

+ (15 MCFD) X \$ 1.50/mcf = 23/day

Total Grayburg/San Andres = \$271/day

Queen (0 MCFD) + (0 BOPD) = \$0.0/day

Total Individual Streams = \$271/day

Commingled production:

(15 BOPD) X \$16.50/bbl = \$248/day

+ (15 MCFD) X \$ 1.50/mcf = \$ 23/day

Total Commingled Production = \$271/day

- i) Formula for allocation of production:
Grayburg/San Andres zone: 100% of oil, gas, and water production.

MONTHLY OIL (GB/SA) = (Total BOPM) X 1.0
MONTHLY GAS (GB/SA) = (Total MCFPM) X 1.0
MONTHLY WATER (GB/SA) = (Total BWPM) X 1.0

Queen zone: 0% of oil, gas, and water production.

MONTHLY OIL (QUEEN) = (Total BOPM) X 0.0
MONTHLY GAS (QUEEN) = (Total MCFPM) X 0.0
MONTHLY WATER (QUEEN) = (Total BWPM) X 0.0

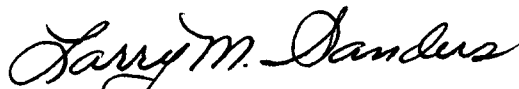
*Where Total BOPM, Total MCFPM, and Total BWPM in the above formulas refer to the total monthly commingled well production of oil, gas, and water respectively.

The subject well is expected to produce a total combined production of 15 BOPD, which is less than the depth bracket allowable of 20 BOPD, and an average of less than 2 BWPD. The Maljamar Grayburg/San Andres and the Corbin Queen both require artificial lift to produce. Commingling will not reduce the value of the crude oil, jeopardize the efficiency of present or future secondary operations in either zone, nor result in the formation of precipitates which might damage either reservoir. Ownership (including working interest, royalty, and overriding royalty) of the Queen and the Grayburg/San Andres is common to both zones.

All offset operators, indicated on the attached list, as well as the United States Geological Survey, have been notified by copy hereof.

Your consideration and administrative approval will be appreciated. Direct any questions to the attention of John Currie, telephone (915) 367-1342 or to me.

Yours very truly,

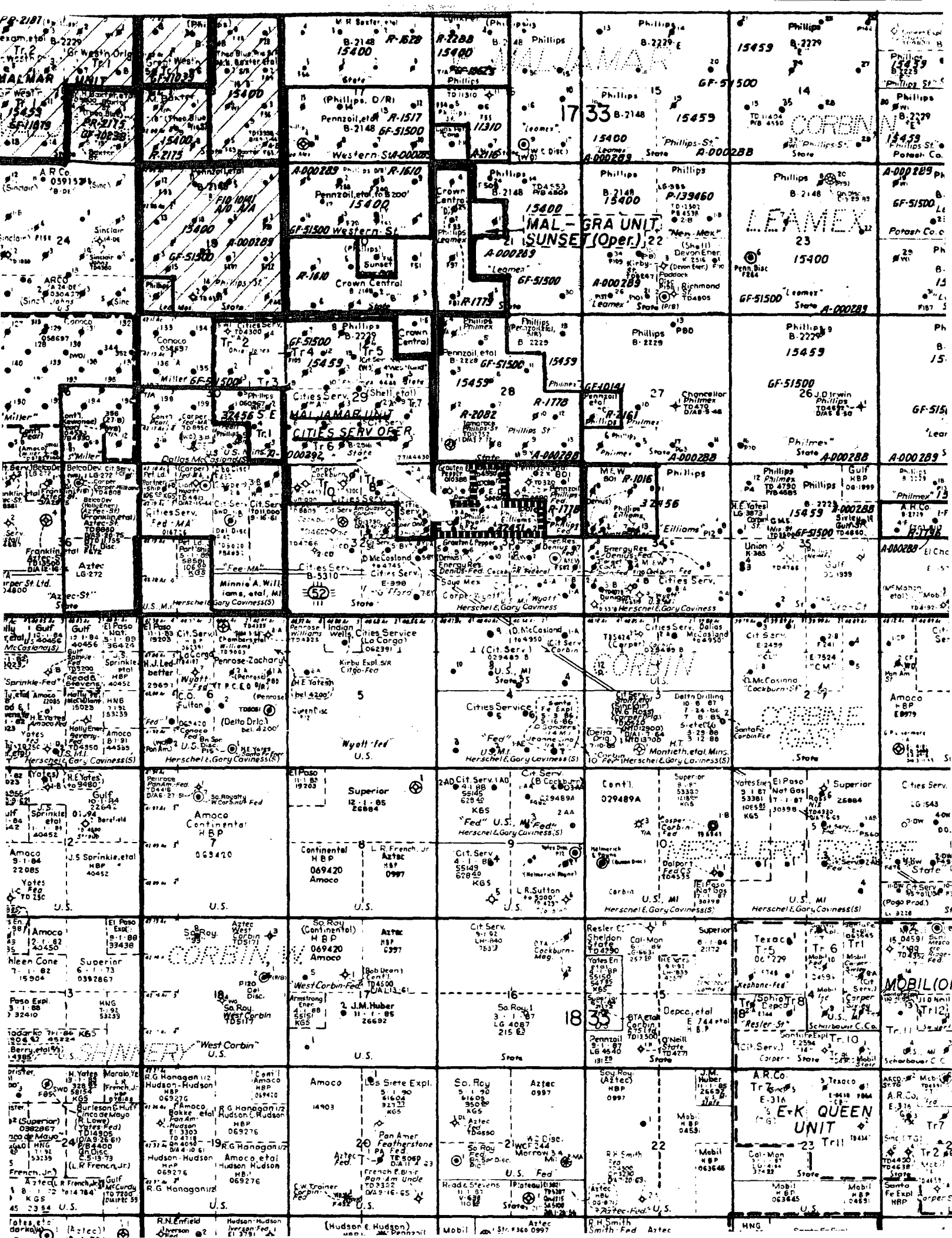


Larry M. Sanders
Regulation and Proration Supervisor

LMS/AP/sdb
REG/PR05/exception2

Enclosures

cc: NMOCD, Hobbs Office
USGS Carlsbad
Offset Operators



PHILLIPS PETROLEUM COMPANY--PERMIAN BASIN REGION

RKB @ 4073'

WELLBORE DIAGRAM - CURRENT COMPLETION

Date: June 15, 1987

GL @ 4063'

Lease & Well No. Wyatt A Federal No. 13

Legal Description 1980' FNL & 660' FNL of Section 33, T-17-S, R-33-E,
Lea County, New Mexico

Field Corbin (Queen) & Maljamar (Grayburg/San Andres)

Status T/A

Tbs. None

Pkr. None

Other: None

TOC @ surface

10" OD @ 20'

TOC @ 1220'

Queen perforations: 3695'-3720', 25' net, 50 holes

Bridge plug @ 3733'

*4295-4308
Grayburg
San Andres*

7" OD 20#/ft @ 3995'

Open Hole 3995' to 4310'

PBTD 4310' (plugged back with gravel & cement)

TD @ 4532'

Checked By:

Resv. Engr.: J. C. Currie *JCC*

PRODUCTION HISTORY

Phillips Petroleum Company

Wyatt A Federal No. 13
Corbin (Queen) Pool

AVERAGE MONTHLY PRODUCTION

BWPM

1000

100

10

10000

1000

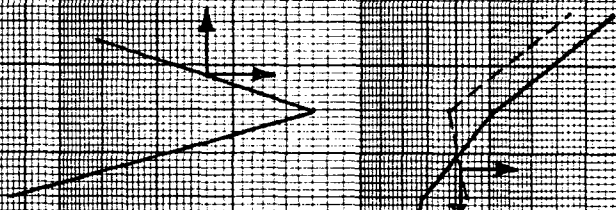
100

AVERAGE MONTHLY PRODUCTION

BOPM or MCFPM

10

MAR	1952
JUN	1952
SEP	1952
DEC	1952
MAR	1953
JUN	1953
SEP	1953
DEC	1953
MAR	1954
JUN	1954
SEP	1954
DEC	1954
MAR	1955
JUN	1955
SEP	1955
DEC	1955
MAR	1956
JUN	1956
SEP	1956
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MAR	1957
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MAR	1969
JUN	1969
SEP	1969
DEC	1969
MAR	1970
JUN	1970
SEP	1970
DEC	1970
MAR	1971
JUN	1971
SEP	1971
DEC	1971



HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

~~STEVEN RAYMOND~~

Shanku Tustus

No. W78-721to Phillips Petroleum CompanyDate 8-7-78Box 1178Lovington, New Mexico

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Submitted by _____ Date Rec. 8-7-78Well No. As Marked Depth As Marked Formation Grayburg-San AndresCounty Lea Field Maljamar Source PumpingPhillips St. #E-30
4432-4582'Phillips St. #E-31
4478-4486'

Resistivity	<u>0.056 @ 74°F.</u>	<u>0.057 @ 74°F.</u>	
Specific Gravity	<u>1.150</u>	<u>1.149</u>	
pH	<u>6.3</u>	<u>6.3</u>	
Calcium (Ca)	<u>14,800</u>	<u>15,500</u>	*MPL
Magnesium (Mg)	<u>2,760</u>	<u>2,400</u>	
Chlorides (Cl)	<u>139,000</u>	<u>138,000</u>	
Sulfates (SO ₄)	<u>1,100</u>	<u>1,400</u>	
Bicarbonates (HCO ₃)	<u>185</u>	<u>35</u>	
Soluble Iron (Fe)	<u>Nil</u>	<u>90</u>	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

By

W. L. Brewer

CHEMIST

NOTICE

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HALLIBURTON DIVISION LABORATORY
HALLIBURTON SERVICES
MIDLAND DIVISION
LOVINGTON, NEW MEXICO 88260
LABORATORY WATER ANALYSIS

Gray 11-18-76
North Park

No. 876-759

To. Phillips Petroleum Company

Date 11-18-76

Box 1178

Lovington, New Mexico

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Submitted by

Date Rec. 11-18-76

Well No. Phillips St. E #25 Depth 3808 - 28'

Formation QUEEN

County LEA, N.M. Field MALJAMAN

Source SWAB

Resistivity	0.030 @ 74°F.	
Specific Gravity	1.014	
pH	6.5	
Calcium (Ca)	7.200	*MPL
Magnesium (Mg)	15.000	
Chlorides (Cl)	203.000	
Sulfates (SO ₄)	1700	
Bicarbonates (HCO ₃)	160	
Soluble Iron (Fe)	30	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

cc:

HALLIBURTON COMPANY

By W. L. Brewer
CHEMIST

NOTICE

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Phillips Petroleum Company
Wyatt A Federal, No. 13

Offset Operators

Cities Service Oil & Gas Corporation
Box 1919
Midland, Texas 79705

Grauten & Pepper
416 Western United Life Bldg.
Midland, Texas 79701

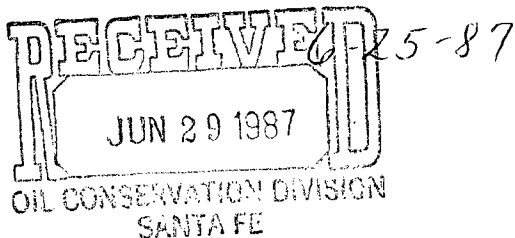
Pennzoil Company
Drawer 1828
Midland, Texas 79702-1828

REG/PRO5/exception3



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR



POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC X _____
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Phillips Pet Co. Wyatt A Fed #13-E 33-17-33
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK J.S.

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/ed